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Docket No.: 6945.002.00-US  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:

J. K. KELLY et al.

Application No.: 09/662,492

Filed: September 15, 2000

For: SYSTEM AND METHOD OF PROVIDING  
AGRICULTURAL PESTICIDE  
INFORMATION AND FACILITATING SALES  
OF PESTICIDE PRODUCTS

Customer No: 30827

Confirmation No: 3670

Group Art Unit: 3625

Examiner: Matthew GART

**RESPONSE TO REQUIREMENT FOR INFORMATION UNDER 37 CFR 1.105**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

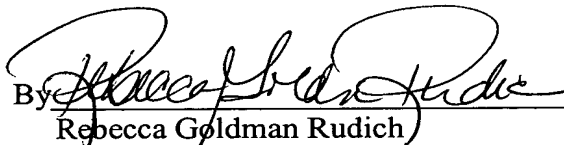
In response to the U.S. Patent Office Communication dated January 27, 2006, Applicant respectfully submits copies of pages from Greenbook® Crop Protection Reference (2005). In the interest of providing all available information to the U.S. Patent Office, Applicant submits this reference. To the best of Applicant's knowledge, however, the submitted pages are not relevant to the examination of the above-identified application. Applicant only submits these pages to comply with the Examiner's request and to advance prosecution of the application. The Applicant is not aware of any technical information concerning methods, previous to the filing of the present application, used by pesticide users for selecting pesticides for use on their property and crops, and then for purchasing the selected pesticide products.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: July 26, 2006

Respectfully submitted,

By   
Rebecca Goldman Rudich

Registration No.: 41,786

MCKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W.

Washington, DC 20006

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Attorneys for Applicants

# CPR<sup>®</sup>

## 2005



**Greenbook<sup>®</sup>**

# *Crop Protection Reference*

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# Brand Name Index

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Brand names that begin with a number are "alphabetized" at the start of the listing, in the Numbers section. Brand names that include a common or trade name but not as the first word of their name are alphabetized under that common or trade name as well as under the first word of their name. Brand names that begin with a company or product line name are alphabetized under both that company or trade name and under the first word following that name.

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Each company participating in CPR is listed here, with its full name and address, branches or regional offices, the names of individuals or departments to whom product inquiries may be directed, as well as general and emergency telephone numbers. This year for your convenience we have added the EPA Registration Number(s) after each product listed. "N/A" means the EPA Registration Number is not applicable for the product.

(A)	Adjuvants	(A)	Herbicide, Antidote	(PPL)	Herbicide, Preplant/Preplant Incorporated	(MF)	Micronutrient
(AN)	Animal Control Product	(POST)	Herbicide, Postemergence	(IGR)	Insect Growth Regulator	(N)	Nematicide
(B)	Biological Control	(PRE)	Herbicide, Preemergence	(I)	Insecticide	(O)	Other
(FE)	Fertilizer			(M)	Miticide	(PGR)	Plant Growth Regulator
(FU)	Fungicide					(AN)	Rodenticide
(H)	Herbicide					(SP)	Seed Protectant
						(SF)	Soil Fumigant

### BASF CORPORATION

#### Agricultural Products

U. S. Crop Protection Products  
26 Davis Drive  
P.O. Box 13528

Research Triangle Park,

NC 27709-3528

For Emergencies Contact:

CHEMTREC (800) 424-9300

BASF (800) 832-HELP

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Website:

<http://www.basf.com/agproducts>

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### BAYER CROPSCIENCE

#### Crop Protection

P.O. Box 12014

2 T.W. Alexander Drive  
Research Triangle Park, NC 27709  
(919) 549-2000

[www.bayercropsience.com](http://www.bayercropsience.com)

Product Information Number:

800-842-8020

For emergencies: 800-414-0244 (24 hours)

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Website: <http://www.certisusa.com>

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### CROMPTON CROP PROTECTION

199 Benson Road  
Middlebury, CT 06749  
(203) 573-2000

For emergencies contact:  
(203) 723-3670

Website:

<http://www.cromptoncorp.com/crop>

# Common Name Index

In this index, products included in CPR are listed under the heading for the common name of their active ingredient. Combination products are listed only under the heading for their mixture of ingredients, not under the headers for the individual ingredients that make up the mixture.

Headings for mixtures are alphabetized under the ingredient that comes first in the alphabet, which is not necessarily the ingredient present in the highest concentration.

Common names that begin with a number, such as "2,4-D" are alphabetized under their number at the start of the listings, rather than under the first letter of their name.

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- 2,4-D 2-Ethylhexyl Ester + Fluoroxypyr 1-Methylheptyl Ester**  
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Weedmaster (BASF) p. 203
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- 2,4-D Triisopropanolamine Salt + Clopyralid Monoethanolamine Salt**  
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- 2,4-D Triisopropanolamine Salt + Picloram Triisopropanolamine Salt**  
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- 2,6-Dichlorobenzonitrile**  
see Dichlobenil
- 6-Benzyladenine**  
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- 6-Benzyladenine + Gibberellins A4, A7**  
Accel (Valent) p. 2493  
Promalin (Valent) p. 2600
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- Abamectin**  
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Clinch (Syngenta) p. 2136  
\*Zephyr 0.15EC (Syngenta) p. 2484
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- Acetamiprid**  
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Desiccant  
Fumigant  
Fungicide  
Fungicide, Preemergence

Fungicide, Preplant/Preplant Incorporated  
Herbicide  
Herbicide Antidote  
Herbicide, Postemergence  
Herbicide, Preemergence  
Herbicide, Preplant/Preplant Incorporated

Insect Growth Regulator  
Insecticide  
Insecticide, Preplant/Preplant Incorporated  
Larvicide  
Micronutrient  
Miticide  
Nematicide

Nitrogen Stabilizer  
Other  
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# Crop and Non-Crop Use Index

Products included in CPR are listed alphabetically under appropriate crop and non-crop headings. The headings under which products are listed were determined by CPR in cooperation with participating manufacturers. SLN registrations are not identified in this index. Refer to product container label for use in your area.

Crop and non-crop headings are grouped into the following categories:

Agricultural Crops  
Aquatic  
Forestry  
Greenhouse  
IVM/Right Of Way  
Ornamental Plants and Sites  
Structural Pest Control  
Turf

Whenever more than 10 products are listed under a particular crop or non-crop heading, the products are grouped into broad product categories, then listed alphabetically within these categories:

Fungicides  
Herbicides  
Insecticides (also includes insect growth regulators, miticides, and nematicides)  
Other (all other categories)

The letter code appearing with each product indicates to which pesticide category it belongs:

(A) Adjuvants	(A) Herbicide Antidote	(I) Insecticide	(AN) Rodenticide
(AN) Animal Control Product	(POST) Herbicide, Postemergence	(M) Miticide	(SP) Seed Protectant
(B) Biological Control	(PRE) Herbicide, Preemergence	(MF) Micronutrient	(SF) Soil Fumigant
(FE) Fertilizer	(PPL) Herbicide, Preplant/ Preplant Incorporated	(N) Nematicide	
(FU) Fungicide	(IGR) Insect Growth Regulator	(O) Other	
(H) Herbicide		(PGR) Plant Growth Regulator	

## AGRICULTURAL CROPS

### A

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#### Other

Ele-Max Nutrient Concentrate 11-8-5  
(Helena) (MF) p. 1436  
KickStand PGR (Helena) (PGR) p. 1450

#### Almond (*Prunus dulcis*) Disease Control

Abound Flowable (Syngenta) (FU), (PH)  
p. 2031  
Aliette WDG (Bayer) (FU) p. 222  
Bravo Ultrex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Captain 50 Wettable Powder (Micro Flo)  
(FU), (PH) p. 1689  
Captain 80WDG (Micro Flo) (FU), (PH)  
p. 1691  
Captex 4L (Micro Flo) (FU), (PH) p. 1694  
Flint (Bayer) (FU) p. 354  
Fosphite (JH Biotech) (FU) p. 1529  
Iprodione 4L AG (Micro Flo) (FU) p. 1701  
Kumulus DF (Micro Flo) (FU), (I), (M)  
p. 1705  
Laredo EC (Dow) (FU) p. 841  
M-Pede (Dow) (FU), (I), (M) p. 868  
Pristine (BASF) (FU) p. 118

**Vegetables, Leafy, Non-Brassica**  
**Disease Control**

Actigard 50WG (Syngenta) (FU) p. 2045  
Alicette WDG (Bayer) (FU) p. 222  
Amistar (Syngenta) (FU) p. 2056  
Apron XL LS (Syngenta) (FU), (SP) p. 2066  
Bravo Ultrex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Bumper 41.8 EC (MANA) (FU) p. 1551  
Endura (BASF) (FU) p. 55  
Flint (Bayer) (FU) p. 354  
Fosphite (JH Biotech) (FU) p. 1529  
Iprodione 4L AG (Micro Flo) (FU) p. 1701  
Kumulus DF (Micro Flo) (FU), (I), (M) p. 1705  
Maxim 4FS (Syngenta) (FU), (SP) p. 2272  
M-Pede (Dow) (FU), (I), (M) p. 868  
PropiMax EC (Dow) (FU) p. 882  
Quadris Flowable (Syngenta) (FU) p. 2314  
Quadris Opti (Syngenta) (FU) p. 2324  
Reason 500 SC (Bayer) (FU) p. 443  
Ridomil Gold EC (Syngenta) (FU) p. 2344  
Ridomil Gold GR (Syngenta) (FU) p. 2356  
Ridomil Gold/Copper (Syngenta) (FU) p. 2372  
Ronilan EG (BASF) (FU) p. 190  
Rovral 4 Flowable (Bayer) (FU) p. 455  
Tanos (DuPont) (FU) p. 1274  
\*Telone C-17 (Dow) (FU), (I), (N), (SF) p. 962  
\*Telone C-17 CA (Dow) (FU), (I), (N), (SF) p. 966  
\*Telone C-35 (Dow) (FU), (I), (N) p. 970  
\*Telone C-35 CA (Dow) (FU), (I), (N), (SF) p. 974  
\*Telone II (Dow) (FU), (I), (N), (SF) p. 980  
\*Telone II CA (Dow) (FU), (I), (N), (SF) p. 984  
Tilt (Syngenta) (FU) p. 2406  
Trilogy (Certs) (FU), (I), (M) p. 600

**Insect Control**

Acephate 90SP (Micro Flo) (I), (SP) p. 1643  
Admire 2 Flowable (Bayer) (I) p. 214  
Agree WG (Certs) (I) p. 579  
\*Agri-Mek 0.15 EC (Syngenta) (I), (M) p. 2047  
\*Asana XL (DuPont) (I) p. 1067  
Avant (DuPont) (I) p. 1082  
\*Baythroid 2 (Bayer) (I) p. 246  
Biobit HP (Valent) (I) p. 2494  
\*Capture 2 EC-CAL (FMC) (I), (M) p. 1342  
\*Capture 2EC (FMC) (I), (M) p. 1347  
Confirm 2F (Dow) (I) p. 678  
Crymax (Certs) (I) p. 586  
Deliver (Certs) (I) p. 588  
\*Diazinon 50W (MANA) (I), (M) p. 1555  
\*Diazinon AG500 (MANA) (I), (M) p. 1564  
DiPel DF (Valent) (I) p. 2522  
DiPel ES (Valent) (I) p. 2525  
\*Di-Syston 8 (Bayer) (I), (M) p. 322  
DiTera DF (Valent) (I), (N) p. 2529  
DiTera ES (Valent) (I), (N) p. 2530  
\*Empower2 (Helena) (I), (PGR) p. 1440  
Entrust (Dow) (I) p. 706  
\*Fanfare 2EC (MANA) (I), (M) p. 1572  
Fullfill (Syngenta) (I) p. 2222  
GF-120 Naturalyte Fruit Fly Bait (Dow) (I) p. 724  
GF-120 NF Naturalyte Fruit Fly Bait (Dow) (I) p. 726

\*Guthion Solupak 50% WP (Bayer) (I) p. 364  
Intrepid 2F (Dow) (I) p. 810  
Javelin WG (Certs) (I) p. 592  
\*Lannate LV (DuPont) (I) p. 1200  
\*Lannate SP (DuPont) (I) p. 1210  
\*Larvin 3.2 (Bayer) (I) p. 374  
Lepinox WDG (Certs) (I) p. 595  
\*Mustang (FMC) (I) p. 1372  
\*Mustang MAX (FMC) (I) p. 1378  
Neemix 4.5 (Certs) (I) p. 598  
Orthene 75 S (Valent) (I) p. 2552  
Orthene 97 (Valent) (I) p. 2563  
\*Pounce 25 WP (FMC) (I) p. 1386  
\*Pounce 3.2 EC (FMC) (I) p. 1391  
\*Proclaim (Syngenta) (I) p. 2310  
Provado 1.6 Flowable (Bayer) (I) p. 430  
\*Renounce 20WP (Bayer) (I) p. 448  
Sevin 4F (Bayer) (AN), (I), (M) p. 496  
Sevin 80S (Bayer) (AN), (I), (M) p. 506  
Sevin XLR Plus (Bayer) (AN), (I), (M) p. 516  
SpinTor 2SC (Dow) (I) p. 913  
Success (Dow) (I) p. 943  
\*Telone C-17 (Dow) (FU), (I), (N), (SF) p. 962  
\*Telone C-17 CA (Dow) (FU), (I), (N), (SF) p. 966  
\*Telone C-35 (Dow) (FU), (I), (N) p. 970

\*Telone C-35 CA (Dow) (FU), (I), (N), (SF) p. 974  
\*Telone II (Dow) (FU), (I), (N), (SF) p. 980  
\*Telone II CA (Dow) (FU), (I), (N), (SF) p. 984  
Thionex 3EC (MANA) (I), (M) p. 1621  
Thionex 50W (MANA) (I), (M) p. 1630  
Tracer (Dow) (I) p. 1001  
Trigard (Syngenta) (I) p. 2463  
\*Vydate L (DuPont) (I), (M), (N), (PGR) p. 1311  
\*Warrior with Zeon Technology (Syngenta) (I), (M) p. 2471  
XenTari (Valent) (I) p. 2642

**Weed Control**

Arrow 2 EC (MANA) (H), (POS) p. 1538  
Bayonet (Helena) (H), (POS), (PRE), (PPL) p. 1419  
Caparol 4L (Syngenta) (H), (POS), (PRE), (PPL) p. 2131  
Fusilade DX (Syngenta) (H), (POS) p. 2226  
Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
Goal 2XL (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 760  
\*Gramoxone Max (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2237  
\*Kerb 50-W (Dow) (H), (POS), (PRE), (PPL) p. 824  
Poast (Micro Flo) (H), (POS), (PGR) p. 1716  
Prism (Valent) (H), (POS) p. 2577  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
Select 2 EC (Valent) (H), (POS) p. 2620  
Spin-Aid (Bayer) (H), (POS) p. 529  
Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448

**Other**

Coron 28-0-0 (AG) (Helena) (MF) p. 1428  
Ele-Max Foliar Phosphite 0-28-26 (Helena) (MF) p. 1431  
Ele-Max Foliar Phosphite 4-30-20 (Helena) (MF) p. 1434  
Ele-Max Nutrient Concentrate 11-8-5 (Helena) (MF) p. 1436  
Ele-Max Super Foliar Phosphite 6-40-16 (Helena) (MF) p. 1437  
KickStand PGR (Helena) (PGR) p. 1450  
ProGibb 4% (Valent) (PGR) p. 2587  
ProGibb Plus 2X (Valent) (PGR) p. 2595

**Vegetables, Root (Including Leaves of)**  
**Disease Control**

Alicette WDG (Bayer) (FU) p. 222  
Amistar (Syngenta) (FU) p. 2056  
Apron XL LS (Syngenta) (FU), (SP) p. 2066  
Bravo Ultrex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Cabrio EG (BASF) (FU) p. 19  
Dithane F-45 Rainshield (Dow) (FU) p. 694  
Dithane M45 (Dow) (FU), (SP) p. 699  
Endura (BASF) (FU) p. 55  
Flint (Bayer) (FU) p. 354  
Fosphite (JH Biotech) (FU) p. 1529  
Gem (Bayer) (FU) p. 360  
Headline (BASF) (FU) p. 80  
Iprodione 4L AG (Micro Flo) (FU) p. 1701  
Kumulus DF (Micro Flo) (FU), (I), (M) p. 1705  
Lorsban 15G (Dow) (FU), (I) p. 844  
Maxim 4FS (Syngenta) (FU), (SP) p. 2272  
Mertect 340-F (Syngenta) (FU), (PH) p. 2276  
M-Pede (Dow) (FU), (I), (M) p. 868  
Pristine (BASF) (FU) p. 118  
Quadris Flowable (Syngenta) (FU) p. 2314  
Quadris Opti (Syngenta) (FU) p. 2324  
Reason 500 SC (Bayer) (FU) p. 443  
Ridomil Gold EC (Syngenta) (FU) p. 2344  
Ridomil Gold GR (Syngenta) (FU) p. 2356  
Ridomil Gold MZ (Syngenta) (FU) p. 2360

Ridomil Gold/Bravo (Syngenta) (FU) p. 2365  
Ridomil Gold/Copper (Syngenta) (FU) p. 2372  
Rovral 4 Flowable (Bayer) (FU) p. 455  
Scala SC (Bayer) (FU) p. 462  
Switch 62.5WG (Syngenta) (FU) p. 2401  
\*Telone C-17 (Dow) (FU), (I), (N), (SF) p. 962  
\*Telone C-17 CA (Dow) (FU), (I), (N), (SF) p. 966  
\*Telone C-35 (Dow) (FU), (I), (N) p. 970  
\*Telone C-35 CA (Dow) (FU), (I), (N), (SF) p. 974  
\*Telone II (Dow) (FU), (I), (N), (SF) p. 980  
\*Telone II CA (Dow) (FU), (I), (N), (SF) p. 984  
Thiolux Jet (Syngenta) (FU), (I), (MF), (M) p. 2403  
Thiophanate Methyl 4.5F AG (Micro Flo) (FU) p. 1742  
Thiophanate Methyl 70W WSB (Micro Flo) (FU) p. 1747  
Trilogy (Certs) (FU), (I), (M) p. 600

**Insect Control**

Acramite-50WS (Crompton) (I), (M) p. 607  
Actara (Syngenta) (I) p. 2041  
Admire 2 Flowable (Bayer) (I) p. 214  
Agree WG (Certs) (I) p. 579  
\*Agri-Mek 0.15 EC (Syngenta) (I), (M) p. 2047  
\*Asana XL (DuPont) (I) p. 1067  
\*Baythroid 2 (Bayer) (I) p. 246  
Biobit HP (Valent) (I) p. 2494  
\*Capture 2 EC-CAL (FMC) (I), (M) p. 1342  
\*Capture 2EC (FMC) (I), (M) p. 1347  
Confirm 2F (Dow) (I) p. 678  
\*Counter 15G Lock 'n Load (BASF) (I) p. 45  
\*Counter CR Lock 'n Load (BASF) (I), (N) p. 48  
Crymax (Certs) (I) p. 586  
\*Danitol 2.4 EC Spray (Valent) (I), (M) p. 2516  
Deliver (Certs) (I) p. 588  
\*Diazinon 50W (MANA) (I), (M) p. 1555  
\*Diazinon AG500 (MANA) (I), (M) p. 1564  
DiPel DF (Valent) (I) p. 2522  
DiPel ES (Valent) (I) p. 2525  
\*Empower2 (Helena) (I), (PGR) p. 1440  
Entrust (Dow) (I) p. 706  
\*Fanfare 2EC (MANA) (I), (M) p. 1572  
Fullfill (Syngenta) (I) p. 2222  
GF-120 Naturalyte Fruit Fly Bait (Dow) (I) p. 724  
GF-120 NF Naturalyte Fruit Fly Bait (Dow) (I) p. 726  
\*Guthion Solupak 50% WP (Bayer) (I) p. 364  
Intrepid 2F (Dow) (I) p. 810  
Javelin WG (Certs) (I) p. 592  
\*Lannate LV (DuPont) (I) p. 1200  
\*Lannate SP (DuPont) (I) p. 1210  
\*Larvin 3.2 (Bayer) (I) p. 374  
Lepinox WDG (Certs) (I) p. 595  
Lorsban 75WG (Dow) (I), (M) p. 848  
\*Lorsban-4E (Dow) (I), (M) p. 859  
Mite-E-Oil (Helena) (I), (M) p. 1453  
\*Mustang (FMC) (I) p. 1372  
Neemix 4.5 (Certs) (I) p. 598  
\*Nemacur 3 (Bayer) (I), (N) p. 402  
Omni Oil 6E (Helena) (A), (I), (M) p. 1454  
Omni Supreme Spray (Helena) (A), (I), (M) p. 1456  
Platinum (Syngenta) (I) p. 2295  
\*Pounce 25 WP (FMC) (I) p. 1386  
\*Pounce 3.2 EC (FMC) (I) p. 1391  
\*Proclaim (Syngenta) (I) p. 2310  
Provado 1.6 Flowable (Bayer) (I) p. 430  
\*Renounce 20WP (Bayer) (I) p. 448  
Sevin 4F (Bayer) (AN), (I), (M) p. 496  
Sevin 80S (Bayer) (AN), (I), (M) p. 506  
Sevin XLR Plus (Bayer) (AN), (I), (M) p. 516  
SpinTor 2SC (Dow) (I) p. 913  
Success (Dow) (I) p. 943  
\*Telone C-17 (Dow) (FU), (I), (N), (SF) p. 962  
\*Telone C-17 CA (Dow) (FU), (I), (N), (SF) p. 966  
\*Telone C-35 (Dow) (FU), (I), (N) p. 970  
\*Telone C-35 CA (Dow) (FU), (I), (N), (SF) p. 974  
\*Telone II (Dow) (FU), (I), (N), (SF) p. 980  
\*Telone II CA (Dow) (FU), (I), (N), (SF) p. 984  
\*Temik 15G (Bayer) (I), (M), (N) p. 533  
\*Temik 15G Lock 'n Load (Bayer) (I), (M), (N) p. 553

\*Temik 15G Lock 'n Load - (CA) (Bayer) (I), (M), (N) p. 563  
\*Temik 15G NW Lock 'n Load (Bayer) (I), (M), (N) p. 566  
\*Thimet 20-G (Micro Flo) (I), (M) p. 1737  
Thiolux Jet (Syngenta) (FU), (I), (MF), (M) p. 2403  
Thionex 3EC (MANA) (I), (M) p. 1621  
Thionex 50W (MANA) (I), (M) p. 1630  
Trigard (Syngenta) (I) p. 2463  
\*Vydate L (DuPont) (I), (M), (N), (PGR) p. 1311  
XenTari (Valent) (I) p. 2642

**Weed Control**

Arrow 2 EC (MANA) (H), (POS) p. 1538  
Assure II (DuPont) (H), (POS), (PPL) p. 1077  
Bayonet (Helena) (H), (POS), (PRE), (PPL) p. 1419  
Betamix (Bayer) (H), (POS) p. 252  
Betanex (Bayer) (H), (POS) p. 254  
Dual MAGNUM (Syngenta) (H), (POS), (PRE), (PPL) p. 2178  
Eptek 7EC (Drexel) (H), (POS), (PRE), (PPL) p. 1013  
Fusilade DX (Syngenta) (H), (POS) p. 2226  
Galigan 2E (MANA) (H), (POS), (PRE), (PPL), (PGR) p. 1579  
Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
Goal 2XL (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 760  
GoalTender (Dow) (H), (POS), (PRE), (PPL) p. 777  
\*Gramoxone Max (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2237  
Norton SC (Bayer) (H), (POS), (PRE), (PPL) p. 406  
Poast (Micro Flo) (H), (POS), (PGR) p. 1716  
Prism (Valent) (H), (POS) p. 2577  
Progress (Bayer) (H), (POS) p. 427  
Pyramin DF (Micro Flo) (H), (POS), (PRE), (PPL) p. 1728  
Raptor (BASF) (H), (POS) p. 175  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Reglone (Syngenta) (HA), (H), (POS), (PPL) p. 2341  
Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
Select 2 EC (Valent) (H), (POS) p. 2620  
Sensor 4 (Bayer) (H), (POS), (PRE), (PPL) p. 466  
Sensor DF (Bayer) (H), (POS), (PRE), (PPL) p. 473  
Spin-Aid (Bayer) (H), (POS) p. 529  
Stinger (Dow) (H), (POS) p. 935  
Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448  
UpBeet (DuPont) (H), (POS) p. 1281

**Other**

Coron 12-0-12 (Ag) (Helena) (MF) p. 1427  
Ele-Max Foliar Phosphite 0-28-26 (Helena) (MF) p. 1431  
Ele-Max Foliar Phosphite 4-30-20 (Helena) (MF) p. 1434  
Ele-Max Nutrient Concentrate 11-8-5 (Helena) (MF) p. 1436  
Ele-Max Super Foliar Phosphite 6-40-16 (Helena) (MF) p. 1437  
KickStand PGR (Helena) (PGR) p. 1450  
ProGibb 4% (Valent) (PGR) p. 2587  
ProGibb Plus 2X (Valent) (PGR) p. 2595

**Vegetables, Tuberous and Corm (Including Leaves of)**  
**Disease Control**

Acrobat 50WP (BASF) (FU) p. 3  
Amistar (Syngenta) (FU) p. 2056  
Apron XL LS (Syngenta) (FU), (SP) p. 2066  
Bravo Ultrex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Bravo Zn (Syngenta) (FU), (MF) p. 2119

**Weed Control**

Banvel (Micro Flo) (H), (POS), (PRE), (PPL) p. 1658  
 Banvel+2,4-D (Micro Flo) (H), (POS), (PPL) p. 1668  
 Bromox - MCPA 2 - 2 (Micro Flo) (H), (POS) p. 1684  
 Bronate Advanced (Bayer) (H), (POS) p. 257  
 Buctril (Bayer) (H), (POS), (PRE), (PPL) p. 263  
 Buctril 4 Cereals (Bayer) (H), (POS) p. 276  
 Buctril 4EC (Bayer) (H), (POS), (PRE), (PPL) p. 282  
 Clarity (BASF) (H), (POS), (PRE), (PPL) p. 33  
 Olympus 70% (Bayer) (H), (POS) p. 412  
 Weedmaster (BASF) (H), (POS), (PPL) p. 203  
 Wildcard Xtra (Helena) (H), (POS) p. 1489

**Wheat, Spring Seeded (Triticum spp.) Disease Control**

Dividend Extreme (Syngenta) (FU), (SP) p. 2155

**Insect Control**

\*Di-Syston 8 (Bayer) (I), (M) p. 322

**Weed Control**

Ally XP (DuPont) (H), (POS) p. 1060  
 Amber (Syngenta) (H), (POS), (PRE), (PPL) p. 2051  
 Banvel (Micro Flo) (H), (POS), (PRE), (PPL) p. 1658  
 Banvel+2,4-D (Micro Flo) (H), (POS), (PPL) p. 1668  
 Barrage HF (Helena) (H), (POS), (PRE), (PPL) p. 1414  
 Bayonet (Helena) (H), (POS), (PRE), (PPL) p. 1419  
 Bromox - MCPA 2 - 2 (Micro Flo) (H), (POS) p. 1684  
 Bronate Advanced (Bayer) (H), (POS) p. 257  
 Buctril (Bayer) (H), (POS), (PRE), (PPL) p. 263  
 Buctril 4 Cereals (Bayer) (H), (POS) p. 276  
 Buctril 4EC (Bayer) (H), (POS), (PRE), (PPL) p. 282  
 Clarity (BASF) (H), (POS), (PRE), (PPL) p. 33  
 Discover (Syngenta) (H), (POS) p. 2145  
 Discover NG (Syngenta) (H), (POS) p. 2150  
 Express XP (DuPont) (H), (POS) p. 1155  
 Finesse (DuPont) (H), (POS), (PRE), (PPL) p. 1158  
 Glean FC (DuPont) (H), (POS), (PRE) p. 1164  
 HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
 Harmony Extra XP (DuPont) (H), (POS), (PRE), (PPL) p. 1169  
 Harmony GT XP (DuPont) (H), (POS), (PRE), (PPL) p. 1174  
 Maverick (Monsanto) (H), (POS), (PRE) p. 1842  
 Olympus 70% (Bayer) (H), (POS) p. 412  
 Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
 Peak CustomPak (Syngenta) (H), (POS), (PRE) p. 2287  
 Puma 1EC LF (Bayer) (H), (POS) p. 440  
 Rave (Syngenta) (H), (POS) p. 2333  
 Silverado Wild Oat (Bayer) (H), (POS) p. 526  
 Starane+Salvo (Dow) (H), (POS) p. 929  
 Starane+Sword (Dow) (H), (POS) p. 932  
 \*Tordon 22K (Dow) (H), (POS) p. 993  
 Unison (Helena) (H), (POS), (PRE), (PPL) p. 1483  
 Weedmaster (BASF) (H), (POS), (PPL) p. 203  
 WideMatch (Dow) (H), (POS), (PPL) p. 1004  
 Wildcard Xtra (Helena) (H), (POS) p. 1489

**Other**

Cerone (Bayer) (PGR) p. 304  
 KickStand PGR (Helena) (PGR) p. 1450

**Y****Yam, True (Dioscorea spp.) Disease Control**

Amistar (Syngenta) (FU) p. 2056  
 Apron XL LS (Syngenta) (FU), (SP) p. 2066  
 Fosphite (JH Biotech) (FU) p. 1529  
 Headline (BASF) (FU) p. 80  
 Maxim 4FS (Syngenta) (FU), (SP) p. 2272  
 M-Pede (Dow) (FU), (I), (M) p. 868

Quadris Flowable (Syngenta) (FU) p. 2314  
 Reason 500 SC (Bayer) (FU) p. 443  
 Ridomil Gold EC (Syngenta) (FU) p. 2344  
 Scala SC (Bayer) (FU) p. 462  
 Trilogy (Certs) (FU), (I), (M) p. 600

**Insect Control**

Actara (Syngenta) (I) p. 2041  
 Admire 2 Flowable (Bayer) (I) p. 214  
 Deliver (Certs) (I) p. 588  
 Entrust (Dow) (I) p. 706  
 Fulfill (Syngenta) (I) p. 2222  
 GF-120 Naturalyte Fruit Fly Bait (Dow) (I) p. 724  
 GF-120 NF Naturalyte Fruit Fly Bait (Dow) (I) p. 726  
 Javelin WG (Certs) (I) p. 592  
 Neemix 4.5 (Certs) (I) p. 598  
 Platinum (Syngenta) (I) p. 2295  
 Provado 1.6 Flowable (Bayer) (I) p. 430  
 SpinTor 2SC (Dow) (I) p. 913  
 Success (Dow) (I) p. 943  
 \*Vydate L (DuPont) (I), (M), (N), (PGR) p. 1311

**Weed Control**

Arrow 2 EC (MANA) (H), (POS) p. 1538  
 Command 3ME (FMC) (H), (POS), (PRE), (PPL) p. 1355  
 Fusilade DX (Syngenta) (H), (POS) p. 2226  
 Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
 Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 \*Gramoxone Max (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2237  
 Poast (Micro Flo) (H), (POS), (PGR) p. 1716  
 Prism (Valent) (H), (POS) p. 2577  
 Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
 Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
 Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
 Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
 Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
 Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
 Select 2 EC (Valent) (H), (POS) p. 2620  
 Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
 Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
 Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448

**Other**

KickStand PGR (Helena) (PGR) p. 1450

**Youngberry (Rubus spp.) Disease Control**

Abound Flowable (Syngenta) (FU), (PH) p. 2031  
 Fosphite (JH Biotech) (FU) p. 1529  
 Nova 40W (Dow) (FU) p. 873  
 Rally 40W (AK, ID, MT, NV, OR, UT, WA, WY) (Dow) (FU) p. 892  
 Rally 40WSP (AR, CA, HI) (Dow) (FU) p. 897  
 Trilogy (Certs) (FU), (I), (M) p. 600

**Insect Control**

\*Asana XL (DuPont) (I) p. 1067  
 \*Brigade WSB (FMC) (I), (M) p. 1337  
 \*Capture 2 EC-CAL (FMC) (I), (M) p. 1347  
 \*Capture 2EC (FMC) (I), (M) p. 1347  
 Confirm 2F (Dow) (I) p. 678  
 \*Fanfare 2EC (MANA) (I), (M) p. 1572  
 Neemix 4.5 (Certs) (I) p. 598

**Weed Control**

Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 Poast (Micro Flo) (H), (POS), (PGR) p. 1716  
 Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
 Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
 Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
 Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
 Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
 Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971

Sinbar (DuPont) (H), (POS), (PRE), (PPL) p. 1244  
 Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
 Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
 Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448

**Other**

KickStand PGR (Helena) (PGR) p. 1450

**AQUATIC****A****Aquatic Sites, Edges and Dry Bottoms Weed Control**

AquaMaster (Monsanto) (H), (POS), (PGR) p. 1755  
 Campaign (Monsanto) (H), (POS) p. 1775  
 Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
 Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
 Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
 Roundup Pro (Monsanto) (H), (POS), (PGR) p. 1889  
 Roundup PRO Concentrate (Monsanto) (H), (POS), (PGR) p. 1902  
 Roundup ProDry (Monsanto) (H), (POS), (PGR) p. 1914  
 Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
 Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
 Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
 Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
 RT Master II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1986  
 Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
 Touchdown CF (Syngenta) (H), (POS), (PRE), (PPL) p. 2426  
 Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
 Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448

**Aquatic Sites, Unspecified Weed Control**

AquaMaster (Monsanto) (H), (POS), (PGR) p. 1755  
 Campaign (Monsanto) (H), (POS) p. 1775  
 Escort XP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1150  
 Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
 Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
 Krenite S (DuPont) (H), (POS), (PPL) p. 1187  
 Landmark II MP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1194  
 Landmark MP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1197  
 Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
 Oust Extra (DuPont) (H), (POS), (PPL), (PGR) p. 1233  
 Oustar (DuPont) (H), (POS), (PRE) p. 1242  
 Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
 Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
 Roundup Pro (Monsanto) (H), (POS), (PGR) p. 1889  
 Roundup PRO Concentrate (Monsanto) (H), (POS), (PGR) p. 1902  
 Roundup ProDry (Monsanto) (H), (POS), (PGR) p. 1914  
 Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
 Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
 Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
 Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
 RT Master II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1986  
 Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411

Touchdown CF (Syngenta) (H), (POS), (PRE), (PPL) p. 2426  
 Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
 Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448  
 Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013

**Other**

AccuQuest WM (Helena) (A) p. 1497  
 Aero Dyne-Amic (Helena) (A) p. 1497  
 Agri-Dex (Helena) (A) p. 1498  
 Array (Intec Agro) (A) p. 1523  
 Citru-Film (Helena) (A) p. 1500  
 Cohere (Helena) (A) p. 1501  
 Cohort DC (Helena) (A) p. 1502  
 Drop Zone LC (Helena) (A) p. 1502  
 Dyne-Amic (Helena) (A) p. 1504  
 Grounded (Helena) (A) p. 1505  
 Induce (Helena) (A) p. 1506  
 Kinetic (Helena) (A) p. 1509  
 Optima (Helena) (A) p. 1512  
 Quest (Helena) (A) p. 1515  
 Strike Zone MXD (Helena) (A) p. 1517  
 Strike Zone PPS (Helena) (A) p. 1518

**C****Canals/Ditches Weed Control**

AquaMaster (Monsanto) (H), (POS), (PGR) p. 1755  
 Campaign (Monsanto) (H), (POS) p. 1775  
 Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
 Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
 Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
 Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
 Reglone (Syngenta) (HA), (H), (POS), (PPL) p. 2341  
 Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
 Roundup Pro (Monsanto) (H), (POS), (PGR) p. 1889  
 Roundup PRO Concentrate (Monsanto) (H), (POS), (PGR) p. 1902  
 Roundup ProDry (Monsanto) (H), (POS), (PGR) p. 1914  
 Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
 Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
 Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
 Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
 RT Master II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1986  
 Touchdown (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2411  
 Touchdown CF (Syngenta) (H), (POS), (PRE), (PPL) p. 2426  
 Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
 Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448  
 Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013

**D****Ditchbanks****Insect Control**

Acceptace 90SP (Micro Flo) (I), (SP) p. 1643  
 Orthene 75 S (Valent) (I) p. 2552  
 Orthene 97 (Valent) (I) p. 2563  
 Sevin 4F (Bayer) (AN), (I), (M) p. 496  
 Sevin 80S (Bayer) (AN), (I), (M) p. 506  
 Sevin XLR Plus (Bayer) (AN), (I), (M) p. 516

**Weed Control**

Banvel (Micro Flo) (H), (POS), (PRE), (PPL) p. 1658  
 Campaign (Monsanto) (H), (POS) p. 1775  
 Clarity (BASF) (H), (POS), (PRE), (PPL) p. 33  
 Crossbow (Dow) (H), (POS) p. 684  
 Glyphomax (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 728  
 Glyphomax Plus (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 743  
 HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443

Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
PastureGard (Dow) (H), (POS) p. 878  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Remedy (Dow) (H) p. 903  
Roundup Original MAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1872  
Roundup Pro (Monsanto) (H), (POS), (PGR) p. 1889  
Roundup PRO Concentrate (Monsanto) (H), (POS), (PGR) p. 1902  
Roundup ProDry (Monsanto) (H), (POS), (PGR) p. 1914  
Roundup UltraDry (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1927  
Roundup UltraMAX II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1944  
Roundup UltraMAX RT (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1959  
Roundup WeatherMAX (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1971  
RT Master II (Monsanto) (H), (POS), (PRE), (PPL), (PGR) p. 1986  
Solicam DF (Syngenta) (H), (PRE), (PPL) p. 2385  
\*Surmount (Dow) (H), (POS) p. 950  
Touchdown HiTech (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2433  
Touchdown Total (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2448  
Unison (Helena) (H), (POS), (PRE), (PPL) p. 1483  
Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013

M

**Marshes / Marshy Areas**  
HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013

W

**Water, Nonflowing**  
AquaMaster (Monsanto) (H), (POS), (PGR) p. 1755  
\*Dimilin 25W (Crompton) (I) p. 619  
HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
Reglone (Syngenta) (HA), (H), (POS), (PPL) p. 2341  
Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013

FORESTRY

C

**Christmas Trees, Plantation and Nursery**  
**Disease Control**  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Fosphite (JH Biotech) (FU) p. 1529  
**Insect Control**  
\*Asana XL (DuPont) (I) p. 1067  
\*Dimilin 25W (Crompton) (I) p. 619  
Sevin 4F (Bayer) (AN), (I), (M) p. 496  
Sevin 80S (Bayer) (AN), (I), (M) p. 506  
Sevin XLR Plus (Bayer) (AN), (I), (M) p. 516  
SpinTor 2SC (Dow) (I) p. 913  
Success (Dow) (I) p. 943  
**Weed Control**  
Barrage HF (Helena) (H), (POS), (PRE), (PPL) p. 1414  
HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Stinger (Dow) (H), (POS) p. 935  
Velpar DF (DuPont) (H), (POS), (PRE), (PPL) p. 1287  
Velpar L (DuPont) (H), (POS), (PRE), (PPL) p. 1296

**Conifer, Forestry**  
**Disease Control**  
Bravo Ulurex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Fosphite (JH Biotech) (FU) p. 1529  
Thiolux Jet (Syngenta) (FU), (I), (MF), (M) p. 2403

**Forest Land**  
**Disease Control**  
Basamid (Certs) (FU), (H), (PPL), (I), (N), (SF) p. 581  
Bravo Ulurex (Syngenta) (FU) p. 2104  
Bravo Weather Stik (Syngenta) (FU) p. 2112  
Fosphite (JH Biotech) (FU) p. 1529  
**Insect Control**  
\*Asana XL (DuPont) (I) p. 1067  
Basamid (Certs) (FU), (H), (PPL), (I), (N), (SF) p. 581  
Biobit HP (Valent) (I) p. 2494  
Crymax (Certs) (I) p. 586  
\*Dimilin 25W (Crompton) (I) p. 619  
DiPel DF (Valent) (I) p. 2522  
DiPel ES (Valent) (I) p. 2525  
Lepinox WDG (Certs) (I) p. 595  
Sevin 4F (Bayer) (AN), (I), (M) p. 496  
Sevin 80S (Bayer) (AN), (I), (M) p. 506  
Sevin XLR Plus (Bayer) (AN), (I), (M) p. 516  
SpinTor 2SC (Dow) (I) p. 913  
Success (Dow) (I) p. 943  
XenTari (Valent) (I) p. 2642  
**Weed Control**  
\*Aatrex 4L (Syngenta) (H), (POS), (PRE), (PPL) p. 2021  
\*Aatrex Nine-O (Syngenta) (H), (POS), (PRE), (PPL) p. 2026  
Barrage HF (Helena) (H), (POS), (PRE), (PPL) p. 1414  
Basamid (Certs) (FU), (H), (PPL), (I), (N), (SF) p. 581  
Escort XP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1150  
Goal 2XL (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 760  
HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
Krenite S (DuPont) (H), (POS), (PPL) p. 1187  
Opti-Amine (Helena) (H), (POS), (PRE), (PPL) p. 1458  
Oust Extra (DuPont) (H), (POS), (PPL), (PGR) p. 1233  
Oust XP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1237  
Oustar (DuPont) (H), (POS), (PRE) p. 1242  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Tordon RTU (Dow) (H) p. 999  
Velpar DF (DuPont) (H), (POS), (PRE), (PPL) p. 1287

**Insect Control**  
\*Asana XL (DuPont) (I) p. 1067  
\*Dimilin 25W (Crompton) (I) p. 619  
SpinTor 2SC (Dow) (I) p. 913  
Success (Dow) (I) p. 943  
Thiolux Jet (Syngenta) (FU), (I), (MF), (M) p. 2403

**Weed Control**  
\*Aatrex 4L (Syngenta) (H), (POS), (PRE), (PPL) p. 2021  
\*Aatrex Nine-O (Syngenta) (H), (POS), (PRE), (PPL) p. 2026  
Barrage HF (Helena) (H), (POS), (PRE), (PPL) p. 1414  
Escort XP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1150  
Galigan 2E (MANA) (H), (POS), (PRE), (PPL), (PGR) p. 1579  
Goal 2XL (Dow) (H), (POS), (PRE), (PPL), (PGR) p. 760  
\*Gramoxone Max (Syngenta) (HA), (H), (POS), (PRE), (PPL), (PGR) p. 2237  
HardBall (Helena) (H), (POS), (PRE), (PPL) p. 1443  
Krenite S (DuPont) (H), (POS), (PPL) p. 1187  
Oust Extra (DuPont) (H), (POS), (PPL), (PGR) p. 1233  
Oust XP (DuPont) (H), (POS), (PRE), (PPL), (PGR) p. 1237  
Oustar (DuPont) (H), (POS), (PRE) p. 1242  
Rattler (Helena) (H), (POS), (PRE), (PPL), (PGR) p. 1462  
Stinger (Dow) (H), (POS) p. 935  
Velpar DF (DuPont) (H), (POS), (PRE), (PPL) p. 1287  
Velpar L (DuPont) (H), (POS), (PRE), (PPL) p. 1296  
Velpar ULW (DuPont) (H), (POS), (PPL) p. 1305  
Westar (DuPont) (H), (POS), (PRE), (PPL) p. 1319

F

Velpar L (DuPont) (H), (POS), (PRE), (PPL) p. 1296  
Velpar ULW (DuPont) (H), (POS), (PPL) p. 1305  
Weedar 64 (Nufarm Americas) (H), (POS), (PRE), (PPL) p. 2013  
**Other**  
AccuQuest WM (Helena) (A) p. 1497  
Aero Dyne-Amic (Helena) (A) p. 1497  
Agri-Dex (Helena) (A) p. 1498  
Array (Intec Agro) (A) p. 1523  
Blendex VHC (Helena) (A) p. 1499  
Citru-Film (Helena) (A) p. 1500  
Cohere (Helena) (A) p. 1501  
Cohort DC (Helena) (A) p. 1502  
Drop Zone LC (Helena) (A) p. 1502  
Dyne-Amic (Helena) (A) p. 1504  
Dyne-A-Pak (Helena) (A) p. 1503  
Grounded (Helena) (A) p. 1505  
Hyper-Active (Helena) (A) p. 1505  
Induce (Helena) (A) p. 1506  
Interactive (Helena) (A) p. 1508  
Kinetic (Helena) (A) p. 1509  
Online 2-5-3 (Helena) (A), (MF) p. 1511  
Optima (Helena) (A) p. 1512  
Penetrator Plus (Helena) (A) p. 1513  
Premium Methylated Spray Oil (Helena) (A) p. 1514  
Quest (Helena) (A) p. 1515  
Request (Helena) (A) p. 1516  
Strike Zone MXD (Helena) (A) p. 1517  
Strike Zone PPS (Helena) (A) p. 1518  
Surfix (Helena) (A) p. 1519

GREENHOUSE

G

**Greenhouse Food Crops**  
**Disease Control**  
Dithane F-45 Rainshield (Dow) (FU) p. 694  
Dithane M45 (Dow) (FU), (SP) p. 699  
M-Pede (Dow) (FU), (I), (M) p. 868  
Scala SC (Bayer) (FU) p. 462  
Terramaster 35WP (Crompton) (FU) p. 666  
Terramaster 4EC (Crompton) (FU) p. 668  
**Insect Control**  
Acceptate 90SP (Micro Flo) (I), (SP) p. 1643  
Admire 2 Flowable (Bayer) (I) p. 214  
Agree WG (Certs) (I) p. 579  
Biobit HP (Valent) (I) p. 2494  
DiPel DF (Valent) (I) p. 2522  
Neemix 4.5 (Certs) (I) p. 598  
Orthene 97 (Valent) (I) p. 2563  
Thionex 3EC (MANA) (I), (M) p. 1621  
Thionex 50W (MANA) (I), (M) p. 1630  
XenTari (Valent) (I) p. 2642

IVM/RIGHT OF WAY

N

**Non-crop Areas**  
**Insect Control**  
Orthene 97 (Valent) (I) p. 2563  
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# Pest Use Index

pests are alphabetized under the key word of their name, not the first word. For example, "Green Foxtail" will be found under "Foxtail, Green." This has been done in order to place related species entries mostly together and adjacent to the entry for their group.

Pest headings are grouped into the following categories:

Diseases

Insects, Mites, and Nematodes

Weeds

Products included in CPR are listed alphabetically under pest headings within these four pest categories.

Space limitations do not allow us to include in this book headings for all pest species. If a pest of importance to you does not have its own heading, please consult a more general heading to locate products that may control it. For example, use the general "Foxtail" heading for types of foxtail that do not have their own heading.

You may want to check the general headings even for pests that do have their own entry, since not all product labels list the individual species for which they are approved. Products indexed under individual species entries will also be indexed under their general heading or headings.

Please note also that SLN registrations are not included in this index.

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## Mode of Action Index

A general understanding of the mode of action, site of action and chemistry of pesticides has always been very helpful in developing a successful pest control program. More recently the problem of resistance has been increasing and its prevention or containment further emphasizes the need to study pesticides and how they work.

Mechanisms for resistance within a weed, insect or disease pathogen, while not always fully understood are generally directly related to the pesticide's chemistry (chemical family) and mode of action. To avoid resistance, scouting alternative management practices, crop rotation and limiting the application of pesticides with the same mode of action in the same season, field or crop is critical.

The following index lists the chemical family, how the product moves into the plant or insect and its mode of action. This information may be used together with local Extension/Crop consultant recommendations to develop a pest control program.

The entries of this two-part index have the following format:

In the first part, common names of products in this book are listed alphabetically. Under each common name, the name of its chemical family is shown in boldface type, followed by a description of its mode of action. This entry is followed by a list of all products in this book with that common name.

For mixtures, the common name entry shows the components in alphabetical order. This is followed first by the chemical family and mode of action for the first component, then by the same information for the second component, then by the information for any third component (and so on). The list of products comes last.

In the second part, brand names are listed alphabetically and the mode of action information follows.

### 1,3-Dichloropropene

**Halogenated Hydrocarbon Fumigant/narcotic.** Acts on primitive nervous systems (nematodes).

*Telone EC (Dow) p. 977*  
*Telone II (Dow) p. 980*  
*Telone II CA (Dow) p. 984*

### 1,3-Dichloropropene + Chloropicrin

**Halogenated Hydrocarbon Fumigant/narcotic.** Acts on primitive nervous systems (nematodes).

**Trichloronitromethane** Intensely irritating gas; used as a warning agent with fumigants.

*InLine (CA) (Dow) p. 807*  
*InLine (Dow) p. 805*  
*Telone C-17 (Dow) p. 962*  
*Telone C-17 CA (Dow) p. 966*  
*Telone C-35 (Dow) p. 970*  
*Telone C-35 CA (Dow) p. 974*

### 1,4-D

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

*HardBall (Helena) p. 1443*  
*Unison (Helena) p. 1483*

### 1,4-D 2-Ethylhexyl Ester

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

*Barrage HF (Helena) p. 1414*

### 1,4-D 2-Ethylhexyl Ester + Fluroxypyr 1-Methylheptyl Ester

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Pyridinecarboxylic Acid** Readily absorbed by roots and foliage; translocated. Epinastic bending and

twisting of stems and petioles, also stem swelling and leaf cupping. Acts as a synthetic auxin, such as IAA.

*Starane+Salvo (Dow) p. 929*

### 2,4-D Butoxyethyl Ester + Triclopyr Butoxyethyl Ester

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Pyridinecarboxylic Acid** Readily absorbed by roots and foliage; translocated. Epinastic bending and twisting of stems and petioles, also stem swelling and leaf cupping. Acts as a synthetic auxin, such as IAA.

*Crossbow (Dow) p. 684*

### 2,4-D Dimethylamine Salt

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

*Opti-Amine (Helena) p. 1458*  
*Weedar 64 (Nufarm Americas) p. 2013*

### 2,4-D Dimethylamine Salt + Dicamba Dimethylamine Salt

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Benzoic Acid (Auxinic)** Rapidly penetrates leaves and stems; translocated. Acts as a synthetic auxin, such as indoleacetic acid.

*Banvel+2,4-D (Micro Flo) p. 1668*  
*Weedmaster (BASF) p. 203*

### 2,4-D Dimethylamine Salt + Dicamba Dimethylamine Salt + Metsulfuron Methyl

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed

by wilting and death. Acts as a synthetic auxin, such as IAA.

**Benzoic Acid (Auxinic)** Rapidly penetrates leaves and stems; translocated. Acts as a synthetic auxin, such as indoleacetic acid.

**Sulfonylurea** Rapid foliar absorption but slower chlorosis and necrosis. Translocated. Inhibits acetolactate synthase (ALS) (also known as acetohydroxyacid synthase (AHAS)) causing death.

*Cimarron Max (DuPont) p. 1108*

### 2,4-D Isooctyl(2-ethylhexyl)Ester + Bromoxynil Octanoate

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems; swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Nitrile** Rapidly absorbed by leaves and roots; translocated. Inhibits cell wall (cellulose) synthesis.

*Double Up B+D (Helena) p. 1429*

### 2,4-D Isopropylamine Salt + Glyphosate Isopropylamine Salt

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Glycine** Absorbed by foliage; translocated throughout, including roots. Growth inhibited soon after application. Inhibits EPSP synthase.

*Campaign (Monsanto) p. 1775*

### 2,4-D Triisopropanolamine Salt + Clopyralid Monoethanolamine Salt

**Phenoxy-Carboxylic Acid Selective** systemic; acts as a growth regulator. Salts rapidly absorbed by roots, esters by foliage. Symptoms include bending and twisting of stems, swelling and leaf cupping followed by wilting and death. Acts as a synthetic auxin, such as IAA.

**Pyridinecarboxylic Acid** Readily absorbed by roots and foliage; translocated. Epinastic bending and



# Mode of Action (MOA) Information for Disease Control, Weed Control, and Insect Control

Disease Control products appear first, followed by Weed Control and Insect Control. The description below applies to all product category sections.

The Chemical Family appears in bold and is underlined. The description of the Mode of Action (MOA) appears to the right of the Chemical Family. Active ingredients appear indented below the Chemical Family, also in bold type (but not underlined). Products with that active appear below it in regular type.

**IMPORTANT:** Products listed under an active ingredient may also contain another active, which may have another mode of action. See each product's specific Mode of Action report for more details. The active ingredient may contain a component that may belong to another chemical family — again, see product's specific Mode of Action report for more details.

At the end of each product category section is an alphabetical listing of products that contain more than one mode of action for that product category. For specific information regarding which chemicals of a product belong to which chemical family (and thus have which mode of action), search for the brand name in the Brand Name Mode of Action Index.

## Disease Control

**Actinamide** Translocated. Inhibits cell division.  
Cymoxanil + Famoxadone  
Tanos (DuPont) p. 1274

**Actinimide** Action is mainly preventative; locally systemic. Limits sporulation.

Cymoxanil  
Curzate 60DF (DuPont) p. 1143

**Acibenzolar** Preventative for certain diseases. Absorbed by foliage; systemic. Mimics the natural systemic activated resistance (SAR) systems found in many plant species.

Acibenzolar-S-methyl  
Actigard 50WG (Syngenta) p. 2045

**Allylamine** Systemic and translaminar, moves in plant water stream. Inhibits respiration within the fungal cell.

Boscalid  
Endura (BASF) p. 55  
Boscalid + Pyraclostrobin  
Pristine (BASF) p. 118

**Antipyrinimidine** A broad spectrum fungicide. Curative and preventative. Inhibits methionine biosynthesis and secretion of hydrolytic enzymes.

Cyprodinil  
Vanguard WG (Syngenta) p. 2468  
Cyprodinil + Fludioxonil  
Switch 62.5WG (Syngenta) p. 2401  
Pyrimethanil  
Scala SC (Bayer) p. 462

**Benzamide (fungicide)** Fungicidal, curative and protective. Inhibits microtubule assembly.

Mancozeb + Zoxamide  
Gavel 75DF (Dow) p. 722

**Benzimidazole** Systemic and translocated. Absorbed by roots and leaves. Protective and curative action. Induces abnormalities in spore formation, growth and cellular multiplication by interfering with synthesis of DNA.

Thiabendazole  
Mertect 340-F (Syngenta) p. 2276  
Thiophanate-methyl  
Thiophanate Methyl 4.5F AG (Micro Flo) p. 1742  
Thiophanate Methyl 70W WSB (Micro Flo) p. 1747

**Chloroacetamide** Absorbed by emerging shoots; translocated. Kills seedlings before emergence. Inhibits cell division.

Propamocarb Hydrochloride  
Previcur Flex (Bayer) p. 426

**Cinnamic Acid** Activity is systemic, curative and preventative. Inhibits sterol synthesis.

Dimethomorph  
Acrobat 50WP (BASF) p. 3

**Copper** Causes non-specific denaturation of protein. Activity can be herbicidal, algicidal, fungicidal or bactericidal.

Copper Hydroxide + Mefenoxam  
Ridomil Gold/Copper (Syngenta) p. 2372

**Dicarboximide** Locally systemic. Contact, preventative, and curative action. Affects cell metabolism (DNA and RNA synthesis).

Cymoxanil + Famoxadone  
Tanos (DuPont) p. 1274

Iprodione  
Iprodione 4L AG (Micro Flo) p. 1701  
Rovral 4 Flowable (Bayer) p. 455  
Vinclozolin  
Ronilan EG (BASF) p. 190

**DMI (Demethylation Inhibitor)** Foliar, preventative, and eradicator activity. Locally systemic. Inhibits synthesis of sterols (SI).

Triflumizole  
Procure 50WS (Crompton) p. 640

**Ethlenebisdithio-carbamate (EBDC)** Action is non-systemic, protective. Acts by being metabolized to the isothiocyanate radical which then inactivates SH group in amino acids contained within the individual pathogen cells.

Fludioxonil + Mancozeb  
Maxim MZ Potato Seed Protectant (Syngenta) p. 2274  
Mancozeb  
Dithane F-45 Rainshield (Dow) p. 694  
Dithane M45 (Dow) p. 699  
Mancozeb + Mefenoxam  
Ridomil Gold MZ (Syngenta) p. 2360  
Mancozeb + Zoxamide  
Gavel 75DF (Dow) p. 722  
Maneb + Streptomycin Sulfate  
Seed Treatment For Potatoes (Helena) p. 1481

**Halogenated Hydrocarbon** Fumigant/narcotic. Acts on primitive nervous systems (nematodes).

1,3-Dichloropropene  
Telone EC (Dow) p. 977

Telone II (Dow) p. 980  
Telone II CA (Dow) p. 984  
1,3-Dichloropropene + Chloropicrin  
InLine (Dow) p. 805  
InLine (CA) (Dow) p. 807  
Telone C-35 (Dow) p. 970  
Telone C-35 CA (Dow) p. 974  
Telone C-17 (Dow) p. 962  
Telone C-17 CA (Dow) p. 966

**Imidazolinone (fungicidal)** Acts as a protectant. Act as respiratory inhibitors.

Fenamidone  
Reason 500 SC (Bayer) p. 443

**Isothiocyanates** Form gases in moist soil for control of most living matter: weeds, nematodes, and soil fungi. Gets ring cleavage to form the major lethal breakdown product--methyl isothiocyanate (MITC).

Dazomet  
Basamid (Certis) p. 581

**Microbial-Bacto-Fungicide (biological fungicide)** Slow-acting, preventative. Colonizes the root system and thereby competes with the disease organism.

Bacillus subtilis GB03 + Metalaxyl + PCNB  
System3 Seed Treatment (Helena) p. 1482

**Morpholine** Foliar spray, as a preventative treatment. Acts as a sterol biosynthesis inhibitor.

Spiroxamine  
Accrue (Bayer) p. 213

**Neem: Clarified Hydrophobic Extract of Neem Oil** Contact insecticidal/miticidal activity and preventative fungicidal activity. Causes suffocation of immature and adult insects and mites. As a fungicide, prevents germination of fungal spores; may inhibit mitochondrial respiration.

Neem Oil, Clarified Hydrophobic Extract  
Trilogy (Certis) p. 600

**Nicotinoid** Controls chewing and sucking insects through contact and ingestion. Acts on central nervous system, causing irreversible blockage of certain critical receptors.

Difenoconazole + Fludioxonil + Mefenoxam + Thiamethoxam

Helix Lite (Syngenta) p. 2254  
Helix Xtra (Syngenta) p. 2256  
Mefenoxam + Thiamethoxam  
Platinum Ridomil Gold (Syngenta) p. 2299

**Organophosphate** Systemic; contact and stomach action; limited translocation. Causes rapid twitching of involuntary muscles, followed by paralysis

# BASF Corporation

**Agricultural Products**  
**U.S. Crop Protection Products**  
 26 Davis Drive  
 P.O. Box 13528  
 Research Triangle Park, NC 27709-3528  
 (919) 547-2000

## Acrobat® 50WP

fungicide

For Use in the Management of Late Blight in Potatoes and Field Grown Tomatoes

ACTIVE INGREDIENT: Dimethomorph 50.0%  
 INERT INGREDIENTS: 50.0%  
 TOTAL: 100.0%

EPA Reg. No. 241-410 EPA Est. No.  
 U.S. Patent No. 5,952,496

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)  
 In case of an emergency endangering life, or property involving this product, call day or night 800-832-HELP.  
 See inside for Additional Precautionary Statements.

BASF Corporation  
 26 Davis Drive  
 Research Triangle Park, NC 27709

### FIRST AID

If swallowed	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### CAUTION

Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

#### Personal Protection Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride
- shoes plus socks

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations:

##### User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product when wind conditions favor drift.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, wear:

- coveralls
- chemical resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride.
- shoes plus socks

### STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

**Storage:** Store in a cool, well-ventilated area. DO NOT allow to become overheated in storage. Keep container closed when not in use.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INFORMATION

**THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF FUNGICIDE APPLICATION.** Do not apply this product through any type of irrigation system unless the label instructions on chemigation are followed. See below for Chemigation Use Directions.

ACROBAT 50WP can be used in a preventative spray program to manage late blight in potatoes and field grown tomatoes. ACROBAT 50WP also can be used to manage tuber blight in potatoes. Maximum results can only be achieved by thorough plant coverage. ACROBAT 50WP must be used in accordance with this label. It is recommended that this product be used within an Integrated Pest Management Program.

**In order to reduce the risk of the development of fungicide resistance, ACROBAT 50WP must be used as a tank-mix with fungicides, EXCEPT MEFENOXAM OR METALAXYL ON POTATOES OR MEFENOXAM ON TOMATOES, registered for late blight or tuber blight control.**

Carefully read, understand, and follow all directions and precautions.

Disease pressure, plant growth rate, and environmental conditions will determine the length of the spray interval and the rate of ACROBAT 50WP. Consult local late blight advisory system recommendations to determine the predicted disease pressure and the associated application rates and intervals. Sprayers should be properly calibrated before application. Determine the size of the area to be sprayed and the output rate to determine the quantities of ACROBAT 50WP and water needed for accurate application. Apply material with adequate spray pressure, water volume, and proper nozzle arrangement to provide full coverage.

### MIXING INSTRUCTIONS

Fill the spray tank until it is approximately 1/2 full with clean water. Slowly, add ACROBAT 50WP to the spray tank while agitating. Agitation must be engaged prior to the addition of the product to obtain a complete and uniform mixture of ACROBAT 50WP.

Limit amount of spray mixture prepared to that needed for immediate use.

#### Mixing Order:

- 1) Water: Begin by agitating a thoroughly clean sprayer tank half full of clean water.
- 2) Products in PVA bags: Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 3) Water-dispersible products: (wetttable powders including ACROBAT 50WP, dry flowables, suspension concentrates, or suspo-emulsions)
- 4) Water-soluble products
- 5) Emulsifiable concentrates: (oil concentrate or methylated seed oil when applicable)
- 6) Water-soluble additives: (ammonium sulfate or urea ammonium nitrate when applicable)
- 7) Remaining quantity water

Maintain maximum constant agitation during application. Thorough agitation is required if the mixture is allowed to stand for a prolonged period of time.

### COMPATIBILITY

The tank mixing behavior of this fungicide with other pesticides has not been fully investigated. If tank mixing with other pesticides is desirable, conduct a jar test with rates and volumes of carrier typically used in an agricultural application. Look for signs of separation, globules, sludge, flakes or other precipitates. DO NOT tank mix with the other pesticide if the jar test with ACROBAT 50WP has indicated incompatibility.

### TANK MIXES WITH FUNGICIDES

**DO NOT apply ACROBAT 50WP alone. ACROBAT 50WP must be used in a tank-mix with fungicides, EXCEPT MEFENOXAM OR METALAXYL ON POTATOES OR MEFENOXAM ON TOMATOES registered for late blight or tuber blight control.** Potential tank mix partner fungicides include but are not limited to Polyram, EBDG fungicides or triphenyltin hydroxide. Refer to the respective tank-mix partner labeling for rates, methods of applications, proper timing, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. Do not use a pesticide product which contains a prohibition against tank mixing.

### AERIAL SPRAY APPLICATIONS

Prior to aerial application, check the aircraft for uniformity of spray pattern, spray swath width and output. If hollow cone or whirlplate nozzles are used, it is recommended

that they be positioned straight down or slightly backwards. When using nozzles that produce relatively straight streams (e.g., D-series orifice with no core), the recommended positioning is straight back or slightly down from back. Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre. If foliage is dense, use an output that will ensure optimum fungicide penetration. Spray swaths should be marked using flaggers who are in completely enclosed vehicles, by counting rows, or by using some other marking device.

**DO NOT** apply when weather conditions favor drift.

#### CHEMIGATION USE DIRECTIONS

ACROBAT 50WP can be applied prior to the onset of disease infection on a regular protectant spray schedule, not an irrigation schedule. Chemigation applications must be made on a 5-10 day spray schedule depending on disease pressure and environmental conditions. Consult local late blight advisory system recommendations to determine the predicted disease pressure and the associated application rates and intervals. Chemigation applications may need to be supplemented with ground or aerial applications if irrigation cycles are less frequent than what is recommended on the label to obtain optimum control.

Apply ACROBAT 50WP fungicide only through sprinkler irrigation systems including center-pivot, lateral move, side (wheel) roll, solid set, or hand move irrigation systems. **DO NOT** apply product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

The irrigation system must be correctly calibrated (with water only) to ensure that the recommended rate of ACROBAT 50WP is applied.

**DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system should have properly working nozzles providing the recommended output and pattern. The chemigation system should also be free of leaks.

#### Overhead Sprinkler Irrigation System Requirements

1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

5. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point that pesticide distribution is adversely affected.

6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

The following routine checks will help to ensure that the sprinkler irrigation system is working properly.

1. Use a calibrated injection metering pump as specified by the manufacturer.
2. Metering pumps, the supply tank, and any associated equipment must be clean and dry before adding diluted ACROBAT 50WP to the system for injection.
3. Check the metering pump periodically to confirm that ACROBAT 50WP is being injected continuously and at the proper calibration throughout the irrigation period.
4. Continuous agitation must be maintained in the supply tank during the entire overhead sprinkler irrigation period.

#### Center Pivot, and Lateral Move Irrigation Equipment

(Use only with electric or oil hydraulic drive systems which provide a uniform water distribution)

1. Determine size of area to be treated
2. Determine the time required to apply the least amount of water. No more than 1/2 inches of water should be applied over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer's rated capacity.
3. Using only water, determine the injection pump output when operated at normal tank pressure.
4. Determine the amount of ACROBAT 50WP fungicide required to treat area.
5. Add the required amount of ACROBAT 50WP fungicide and sufficient water to meet the injection time requirements of the solution tank.
6. Maintain constant solution tank agitation during the injection period.
7. Stop injection equipment after treatment is completed. Continue to operate the system until ACROBAT 50WP fungicide solution has cleared the last sprinkler head.

#### Solid-set, Side (wheel) Roll, and Hand Move Irrigation Equipment:

1. Determine acreage covered by sprinkler.
2. Fill injector solution tank with water and adjust flow rate to use contents over a 10 to 30 minute interval.
3. Determine the amount of ACROBAT 50WP fungicide required to treat the area.
4. Add the required amount of ACROBAT 50WP fungicide into the same quantity of water used to calibrate the injection equipment.
5. Maintain constant solution tank agitation during the injection period.
6. Operate system at normal pressures recommended by the manufacturer of the injection equipment and use for the time interval established during calibration.
7. Inject ACROBAT 50WP fungicide at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
8. Stop injection equipment after treatment is completed. Continue to operate the system until ACROBAT 50WP fungicide solution has cleared the last sprinkler head.

#### DIRECTIONS FOR APPLICATION

Maximum benefit of ACROBAT 50WP from foliar applications requires thorough coverage of the plant. To obtain thorough coverage of foliage, use proper spray pressure and minimum of 20 gallons per acre.

Crop	Target Disease	Use Rate: Oz Product/ Acre/ Application	General Recommendations	Restrictions
Potato	Late Blight ( <i>Phytophthora infestans</i> )	4-6.4	Applications should begin prior to the onset of disease infection and based on the recommendation of the local late blight advisory system. Apply on 5-10 day application intervals. Disease pressure and environmental conditions should determine application rates and spray intervals. Use higher rates and shorter spray intervals when disease pressure is higher. Consult local late blight advisory system recommendations to determine the predicted levels of disease pressure and the associated application rates and intervals.  Apply spray to obtain thorough and complete plant coverage.  ACROBAT 50WP may be applied after vine kill.	DO NOT exceed 32 oz per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons per acre for aerial applications.  DO NOT apply within 4 days of harvest in all states.
	Tuber Blight ( <i>Phytophthora infestans</i> ) MANAGEMENT OR SUPPRESSION	6.4	When used according to label recommendations for Late Blight control, ACROBAT 50WP can also reduce tuber blight.  To maximize activity against tuber blight, begin fungicide applications before disease onset occurs and in accordance with local late blight advisory system recommendations. Also, maintain regular application schedules and obtain thorough plant coverage.  ACROBAT 50WP may be applied after vine kill.	
Tomato— Non-staked	Late Blight ( <i>Phytophthora infestans</i> )	6.4	Begin applications when plants are 4-6 inches high and prior to the onset of disease infection. Apply on a 5-10 day spray schedule. Prior to the onset of conditions favoring infection, apply every 7-10 days. When environmental conditions have been conducive for diseases, or when disease has been detected within the field or nearby, a 5-7 day schedule is recommended.  Apply spray to obtain thorough and complete plant coverage.	DO NOT exceed 32 oz per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons per acre for aerial applications.  DO NOT apply within 4 days of harvest in all states.

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Crop	Target Disease	Use Rate: Oz Product/ Acre/ Application	General Recommendations	Restrictions
Tomato—Staked	Late Blight ( <i>Phytophthora infestans</i> )	6.4	<p>Begin applications when plants are 4-6 inches high and prior to the onset of disease infection. Apply on a 5-10 day spray schedule. Prior to the onset of conditions favoring infection, apply every 7-10 days. When environmental conditions have been conducive for diseases, or when disease has been detected within the field or nearby, a 5-7 day schedule is recommended.</p> <p>For ground application use a minimum of 20 gallons of spray volume and increase the spray volume as the plants grow during the season. Spray volume should be proportional to the amount of plant tissue to be covered, such that 100 gallons of spray per acre is used on mature plants.</p> <p>For aerial applications, follow the directions for non-staked tomatoes above.</p> <p>Apply spray to obtain thorough and complete plant coverage.</p>	<p>DO NOT apply more than 32 oz per acre per growing season.</p> <p>DO NOT use less than 20 gallons of water per acre for ground applications.</p> <p>DO NOT apply within 4 days of harvest in all states.</p>

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**ADDITIONAL RESTRICTIONS**

To reduce the possibility of developing *Phytophthora infestans* resistance to both ACROBAT 50WP and to mefenoxam or metalaxyl products, the tank mixing of ACROBAT 50WP with any of these products is **STRICTLY PROHIBITED**.

*Phytophthora infestans* strains have developed resistance to some crop protection products after repeated use. Since the development of resistance cannot be predicted, ACROBAT 50WP should always be used in a resistance management program. Tank mixing and thorough spray coverage are necessary to minimize the development of *Phytophthora infestans* strains with resistance to ACROBAT 50WP.

**ROTATIONAL CROP GUIDELINES**

After making the last ACROBAT 50WP application, rotational crops may be planted at the following intervals:

- Any time
  - Potatoes
  - Tomatoes
- One month
  - Barley
  - Tobacco
  - Oats
  - Wheat
  - Leafy vegetables, such as head lettuce, leaf lettuce, spinach, and celery
  - Brassica vegetables, such as broccoli, cabbage, and cauliflower
  - Root/tuber and bulb vegetables, such as carrot, onion, radish, and sugar beet
- Seven months
  - Alfalfa
  - Beans
  - Clover
  - Corn
  - Peas
  - Rice
  - Sorghum
  - Soybeans
- Twelve months
  - All other crops

**DISCLAIMER**

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of BASF Corporation (BASF). All such risks shall be assumed by the user.

BASF shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

BASF warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above.

**BASF DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF ACROBAT 50WP.** In no case shall BASF or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

**USES WITH OTHER PRODUCTS (TANK MIXES)**

If this product is used in combination with any other product except as specifically recommended in writing by BASF, then BASF shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. If used in a combination recommended by BASF, the liability of BASF shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the BASF product in such combination use, and in any event shall be limited to return of the amount of the purchase price of the product.

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BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709

VID 9.24.04

**Apogee®**  
plant growth regulator  
For use on apples, grass grown for seed, peanuts and pears

Active Ingredient:  
Prohexadione calcium [calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate] ..... 27.5%  
Other Ingredients: ..... 72.5%

Total ..... 100.0%

EPA Reg. Number 7969-188                      EPA Est. Number

**KEEP OUT OF REACH OF CHILDREN.**  
**CAUTION**

See inside booklet for complete First Aid, Precautionary Statement, Directions For Use, and Conditions of Sale and Warranty.

Product of Japan; formulated in U.S. with U.S. and imported ingredients  
BASF Corporation  
26 Davis Drive  
Research Triangle Park, North Carolina 27709

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**Caution.** Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on the EPA chemical-resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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